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**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 31112-2014**

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**Classification of non-directional self-ballasted LED lamps for  
general lighting services**

普通照明用非定向自镇流LED灯规格分类

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Quarantine;  
Standardization Administration of the PRC**

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### Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. The standard proposed by China National Light Industry Council. This standard by the National Standardization Technical Committee of electrical lighting (SAC/TC224) centralized. This standard was drafted. Hangzhou Jing Blue Lighting Technology Co., Matsushita Electric Research and Development (Suzhou) Co., Ltd., Xiamen Topstar photo Ming Co., Ltd., Suzhou Bao Lai Thai Union Optical Co., Ltd., the National Electric Light Source Quality Supervision and Inspection Center (Beijing), Zhejiang Sunshine Lighting Appliance Set Group Co., Ltd., Foshan Electrical and Lighting Co., Ltd., Taizhou billion Ka Electronic Technology Co., Ltd. Tak Hong (Fujian) Optoelectronics Technology Co., The company, Zhejiang glazing Lighting Co., Ltd., Hengdian Group State Lighting Co., Ltd., Hangzhou, Hangzhou Optical Co., Ltd., Hangzhou Hongyan Electric Ltd., Zhejiang Jinling Lighting & Electric Co., Ltd., Hangzhou Andhra Electronics Co., Ltd., Shanghai Electronic Engineering Ltd. to think twice, Dongguan City, Kay Lamp Sheng Industrial Company, Beijing Institute of electric light. The main drafters of this standard. Wu Yongqiang, Dai Xin, Qinbi Fang, Zhang Yingchun, Zhang, Lu Jun, Wei Bin, Yang meritorious, Simcheong whole, Wang Qin Rong, Kejian Feng, Chen Xinping, Yan Qian Jun, Sunquan Ming, Wu Zhiping, Wu Zhaozhao, Wang Peng, Yao Limin, Duan Yan Fang, Jiang Shan. General non-directional lighting self-ballasted LED lamp specifications Category

### 1 Scope

China's national classification standard for non-directional self-ballasted LED lamps for general lighting. It specifies the specification classification of these lamps, and it applies to the non-directional self-ballasted LED lamps used for general lighting in domestic and similar applications, in which the driver is integrated into the lamp. Its range is lamps rated at 220 V, 50 Hz alternating current, with screw caps conforming to GB/T 1406.1 or bayonet caps conforming to GB/T 1406.5. This is the ordinary light bulb, and it is the largest single lighting product there is. The lamp it replaced - the general lighting service incandescent bulb - had been dimensionally standardised for a century, and every luminaire, shade, socket and enclosure in existence was built around those dimensions. An LED lamp claiming to replace a 60 W incandescent bulb has to physically go where that bulb went,

and a great many early ones did not: they were longer, wider at the base, or heavy enough to matter in a pendant fitting. The classification therefore covers the envelope shape and its dimensions, the maximum overall dimensions against the incandescent envelope standard GB/T 10681, and the cap. The performance requirements themselves - efficacy, colour, lifetime, flicker - live elsewhere, and keeping them out of this document is deliberate, because a classification has to remain stable while performance requirements are revised. The result is that a lamp of a stated classification will fit the fitting it names, and the performance standards then describe how well it lights. Issued on 3 September 2014 and in force since 1 August 2015.

This standard specifies the general non-directional lighting self-ballasted LED lamp specifications classification. This standard applies to domestic and similar general lighting as a stream, the stable ignition components integrated as one of the non-directional self-ballasted LED lights. Scope is as follows:

--- Rated voltage AC220V Frequency 50Hz;

--- Used in line with GB/T 1406.1 of the screw-on cap, or in line with GB/T 1406.5 bayonet cap.

Note. The "light" represents that appears in this standard "general lighting LED lights with a non-directional self-town", unless specified in other types of lamps.

## 2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 1406.1 lamp types and dimensions - Part 1. screw-on cap

GB/T 1406.5 lamp types and dimensions - Part 5. Bayonet cap

GB/T 10681 for domestic and similar general lighting purposes - Performance requirements

GB/T 24826 for general lighting LED and LED modules terminology and definitions

## 3 Terms and Definitions

GB/T 24826 and defined by the following terms and definitions apply to this document.

3.1 Beam angle beamangle By plane beam in two axes on a given angle between the straight line, two lines were positive through the center of the lamp and hair A light intensity of the central light intensity of 50% of the emission point.

3.2 Directional lighting directionallighting More than 80% of the light output of the lamp in solid angle pistr (equivalent to 120 ° cone angle of the conical solid angle) within.

3.3 Non-directional lighting non-directional lighting The light output of the lamp in solid angle  $\Omega$  (equivalent to  $120^\circ$  cone angle of the conical solid angle) of less than 80%.

3.4 Self-ballasted LED lamp self-ballasted LED lamp Containing lamp, LED light source and to maintain its stable ignition element necessary to make it as a whole, when not damage its structure is not available Removing the lights.

3.5 Non-directional self-ballasted LED lights self-ballasted non-directional LED lamp Self-ballasted lamps with non-directional characteristics of LED lights.